REMARKS

Comments of the applicant are preceded by related comments of the examiner in small bold type.

> **2. Claims 8, 10-27 and 35-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hokkanen (WO 98/08353) in view of Davidson (US 6408182 Bl).**
>
> **3. Regaining claims 35, 36, 42, 48, 53 and 57-59, Hokkanen teaches (fig. 2) a method comprising: enabling communication among radio network controllers (BSC1, BSC2) and radio nodes (BTS2, BTS4); establishing a first traffic channel between a first access terminal and a first RNC (BSC1) of the network through a first radio node (BST2) when the first access terminal is in the coverage area of the first radio node (BST2), establishing a second traffic channel between a second access terminal and a second RNC (BSC2) of the network through a second radio node (BST4) when the second access terminal is in the coverage area of the second radio node (BST4); and maintaining the first traffic channel between the first access terminal and the first radio network controller (BSC1) without requiring the first traffic channel to pass through another radio network controller when access terminal moves from a coverage area of the first radio node to a coverage area of the second radio node.**
>
> **4. Hokkanen does not teach many-to-many communications and a packet network.**
>
> **5. Davidson teaches (fig. 2) many-to-many communications and a packet network (IP network). It would have been obvious to one of ordinary skill in the art to adapt to Hokkanen's system Davidson's concept of packet routing and many-to-many to enhance the scope of the system ensuring back-up incase of equipment failure.**

As the examiner correctly notes, Hokkanen does not disclose "enabling many-to-many communication among radio network controllers and radio nodes through a packet network" as recited in claim 35. The applicant further submits that Hokkanen provides no disclosure or suggestion of the other features of amended claim 35.

Hokkanen discusses techniques for carrying out a handoff in a cellular radio system. In the Hokkanen system, a base station (e.g., BTS4 210) that is located at a border of two base station systems is connected to two base station controllers (e.g., BSC1 200 and BSC 202). Traffic channels for mobile stations on the left side of the dashed vertical line are established with BSC1; traffic channels for mobile stations on the right side of the dashed vertical line are established with BSC 2. The determination as to whether a handoff takes place is dependent on the location of the mobile station relative to the coverage areas of the BSCs, not the BTSs.

In the scenario presented by the examiner in which a mobile station moves from a coverage area of BTS2 to a coverage area of BTS4, the traffic channel established between the mobile station and BSC1 is maintained only if the mobile station moves to the portion of the

coverage area of BTS4 that is to the left of the dashed vertical line. If the mobile station moves to the portion of the coverage area of BTS4 that is to the right of the dashed vertical line, a handoff takes place to transfer control of the mobile station from BSC1 to BSC2, thereby terminating the traffic channel between the mobile station and BSC1. The Hokkanen system does not provide support for the scenario in which traffic channels for two mobile stations (e.g., mobile station A and mobile station B) located in the portion of the coverage area of BTS4 that is to the right (or left) of the dashed vertical line are established with different BSCs.

Hokkanen does not disclose "establishing a first traffic channel between a first access terminal and a first radio network controller ... through a first radio node when the first access terminal is in a coverage area of the first radio node, establishing a second traffic channel between a second access terminal and a second radio network controller ... through a second radio node when the second access terminal is in a coverage area of the second radio node, and maintaining the first traffic channel between the first access terminal and the first radio network controller without requiring the first traffic channel to pass through another radio network controller when the first access terminal moves from the coverage area of the first radio node to ***any portion*** of the coverage area of the second radio node," as recited in amended claim 35. (emphasis added).

Davidson was cited solely for its alleged teaching of "enabling many-to-many communication among radio network controllers and radio nodes through a packet network" as recited in claim 35. Davidson does not disclose and would not have made obvious "establishing a first traffic channel between a first access terminal and a first radio network controller ... through a first radio node when the first access terminal is in a coverage area of the first radio node, establishing a second traffic channel between a second access terminal and a second radio network controller ... through a second radio node when the second access terminal is in a coverage area of the second radio node, and maintaining the first traffic channel between the first access terminal and the first radio network controller without requiring the first traffic channel to pass through another radio network controller when the first access terminal moves from the

coverage area of the first radio node to any portion of the coverage area of the second radio node," as recited in amended claim 35.

For at least these reasons, claim 35 and its dependent claims are patentable. Independent claims 50 and xxx, and the claims that depend on claims 50 and xxx, are patentable for at least the same reasons.

> **22. Claims 67-76, 78-89, 91-107, 109-114, 116- 118, 120- 125 and 128, rejected under 35 U.S.C. 102(e) as being anticipated by Davidson.**
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> **23. Regarding claims 67-72, 74-76,78, 79, 80-85, 87-89 and 91-98, Davidson teaches (fig. 2) a method comprising: simultaneously enabling a radio node (BSC) to serve both a first dormant access terminal (mobile) and a second dormant access terminal (mobile), the first access terminal having n session with a first RNC (MSC) and a second access terminal having a session with a second RNC (MSC), the RN (BSC) being interconnected with the RNCs (MSCs) using a packet network (IP) (col. 5, line 14 - col. 6, line 2).**

First, the applicant disagrees with the examiner's correspondence of a "radio node" of claim 67 with a "base station controller" of Davidson, and a "radio network controller" of claim 67 with a "mobile switching center" of Davidson. Davidson's use of the terms "base station controller" and "mobile switching center" is consistent with its use in the art as evidenced by the teachings at col. 3, lines 20-21, in which Davidson corresponds "base station controller" with a "radio network controller." There is no support in Davidson for the alternative interpretation of those terms as suggested by the examiner.

Further, even if, for the sake of argument only, a "radio node" of claim 67 corresponds with a "base transceiver station" of Davidson and a "radio network controller" of claim 67 corresponds with a "base station controller" of Davidson, Davidson still provide no disclosure of a method that includes "simultaneously enabling a radio node to serve both a first dormant access terminal and a second dormant access terminal, the first access terminal having a session with a first radio network controller and the second access terminal having a session with a second radio network controller, the radio node being interconnected with the radio network controllers using a packet network," as recited in claim 67.

Davidson discloses a redundant MSC architecture for a radio telecommunications network. In Davidson, each BSC maintains a list of MSCs that includes at least one MSC that is

its primary MSC and at least one MSC that serves as a backup to the primary MSC. (col. 3, lines 20-23). A single backup MSC may cover the entire coverage area of the BSC, or multiple backup MSCs may be implemented on a cell-by-cell basis. (col. 3, lines 49-51). In the portions of Davidson cited by the examiner as allegedly teaching the features of claim 67, Davidson discloses that a BSC reports to its primary MSC until it detects that the primary MSC has failed, at which point the BSC switches its reporting to a backup MSC. The BSC orders the BTSs in the network to broadcast a new identifier which is used by mobile stations to determine when to perform location updating. In those instances in which a single backup MSC covers the entire coverage area of the BSC, the BSC routes communications (including location update communications) from the mobile stations to the single backup MSC. In those instances in which multiple backup MSCs service the coverage area of the BSC, the BSC routes communications from the mobile stations to the correct backup MSC based on each mobile stations' cell location. If the primary MSC resume operation, the BSC orders the BTSs of the network to broadcast a new identifier ordering the mobile stations to re-register with the original MSC.

Davidson, in the portions cited by the examiner or otherwise, does not disclose "simultaneously enabling a radio node to serve both a first dormant access terminal and a second dormant access terminal, the first access terminal having a session with a first radio network controller and the second access terminal having a session with a second radio network controller, the radio node being interconnected with the radio network controllers using a packet network," as recited in claim 67. For at least these reasons, claim 67 and its dependents are patentable. Independent claim 79 is patentable for at least the same reasons.

Claim 80 calls for a method that includes "in a radio access network, serving traffic channels between at least two access terminals and at least two different radio network controllers through a single radio node without regard to which portion of a coverage area of the radio node each of the at least two access terminals is located, wherein data packets between an access terminal and a radio network controller do not traverse any other radio network controller, the radio node being interconnected with the radio network controllers using a packet network."

In rejecting previously-presented claim 80, the examiner cited the same portion of Davidson as was cited in the rejection of claim 67. The applicant submits that no portion of Davidson, cited or otherwise, discloses or suggests "serving traffic channels between at least two access terminals and at least two different radio network controllers through a single radio node without regard to which portion of a coverage area of the radio node each of the at least two access terminals is located, wherein data packets between an access terminal and a radio network controller do not traverse any other radio network controller..." as recited in amended claim 80. At most, in the cited portion, Davidson discloses actions that may be taken by a base station controller in routing communications received from mobile stations to MSCs. The applicant submits that Davidson does not disclose the features of amended claim 80. For at least these reasons, claims 80 and its dependents are patentable. Independent claim 92 is patentable for at least the same reasons.

Claim 93 calls for a method that includes "at a radio network controller in communication with a first radio node and a second radio node through a packet network that enables many-to-many communication, establishing a first traffic channel with a first access terminal through the first radio node when the first access terminal is in a coverage area of the first radio node, and maintaining the first traffic channel with the first access terminal without requiring the first traffic channel to pass through another radio network controller when (a) the first access terminal moves from a coverage area of the first radio node to any portion of a coverage area of the second radio node, and (b) a second traffic channel exists between a second access terminal, in any portion of the coverage area of the second radio node, and a second radio network controller."

In rejecting claim 93, the examiner cited the same portion of Davidson as was cited in the rejection of claim 67. It is not at all clear to the applicant where in the cited portion of Davidson the examiner finds the alleged teaching of "establishing a first traffic channel with a first access terminal through the first radio node when the first access terminal is in a coverage area of the first radio node, and maintaining the first traffic channel with the first access terminal without requiring the first traffic channel to pass through another radio network controller when

(a) the first access terminal moves from a coverage area of the first radio node to any portion of a coverage area of the second radio node, and (b) a second traffic channel exists between a second access terminal, in any portion of the coverage area of the second radio node, and a second radio network controller," as recited in claim 93. At most, in the cited portion, Davidson discloses actions that may be taken by a base station controller in routing communications received from mobile stations to MSCs. The applicant submits that Davidson does not disclose the features of claim 93. For at least these reasons, claims 93 and its dependents are patentable. Independent claims 96 and 99 and their dependents are patentable for at least the same reasons.

> **25. Regarding claims 99-104, 106, 107, 109- 114, 117, 118, 120, 121, 123-125 and 128, Davidson teaches (fig. 2) a method comprising: at a RN (BSC) in communication with a first RNC (MSC) and a second RNC (MSC) through a packet network (51) that enables many-to-many communication, routing access channel packets received fi-om an access terminal (mobile, not shown) to a selected one of either the first or second RNC (MSC) by determining an IP address of a serving RNC (col. 3, lines 3-34).**

Based on the above-quoted text of the Office Action, the applicant assumes that the rejection applies to claims 102-103, 106, 107, 109-114. 117, 118, 120, 121, 123-125 and 128.

Claim 102 calls for a method that includes "at a radio node in communication with a first radio network controller and a second radio network controller through a packet network that enables many-to-many communication, routing access channel packets received from an access terminal to a selected one of either the first radio network controller or the second radio network controller by determining an Internet protocol address of a serving radio network controller."

Col. 3, lines 3-34 of Davidson which the examiner alleges teaches the features of claim 102 is reproduced in its entirety below:

> FIG. 2 is a simplified block diagram of the preferred embodiment of the radio telecommunications network architecture of the present invention. In this architecture, BTSs 41-45, BSCs 46-48, and MSCs 49-50 are all connected to an Internet Protocol (IP) network 51, or to any other network in which the transmission paths and control paths are logically separated. Each MSC is connected through intersystem signaling links to a home location register (HLR) 52. In this configuration, it becomes possible, and more economically viable, to create a system in which a backup MSC can take control for a primary MSC which has failed. When additional mechanisms are implemented with the IP network configuration, full MSC

> redundancy is provided, thereby preventing inconvenient and expensive service outages.
>
> Each BSC or each radio network controller (RNC) maintains a list of MSCs in the network. This list includes at least one MSC that is a default master MSC, and at least one MSC that is an alternate MSC. The list may include multiple alternate MSCs and other selection criteria in order to reduce the possibility that the load from a failed radio network is switched to an already overloaded MSC. For example, the selection criteria may include the time-of-day and/or day-of-week since certain MSCs may be more heavily loaded at different times of the day or on different days. The alternative MSC addresses may be stored in a number of different formats such as, for example, Point Code, Global Title, Ordinal Identifier, IP address, E.164 number, an other equivalent type formats.

No portion of Davidson, cited or otherwise, provides any disclosure of "routing access channel packets received from an access terminal to a selected one of either the first radio network controller or the second radio network controller by determining an Internet protocol address of a serving radio network controller," as recited in claim 102. The cited portion of Davidson merely provides that a MSC address in the form of an IP address may be included in a list of MSCs that is maintained by a BSC of the network. For at least these reasons, claims 102 and its dependents are patentable. Independent claims 113 and 121 and their dependents are patentable for at least the same reasons.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Enclosed is a $510.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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